

REMARKS

This communication is in response to the Final Office Action mailed on June 3, 2011. Applicant has amended claims 1, 16, 29 and 31 and has added new claims 32-35. The application currently includes claims 1, 6-16, 19-22 and 28-35.

The Office Action rejected claims 1, 7-11, 16, 20, 22 and 28 as being anticipated by Schow U.S. Patent No. 4,055,064. Applicant respectfully traverses this rejection.

Elements of claim 1 include that said holder is tiltable toward and away relative to said axis of rotation such that an axis of said holder crosses said axis of during the working of the workpiece into a selected shape. Applicant respectfully submits that at least this claim element is not disclosed in Schow.

Rather, Schow discloses a holder (the two split frame halves) that is not tiltable toward or away from the axis of rotation such that an axis of the holder crosses the axis of rotation. Referring to Column 3, lines 7-29 of Schow the operation of the device is disclosed. In particular, at lines 21-28, Schow discloses that once the device is inserted into the exhaust pipe, action against the cam surfaces 14, the frame segments expand until the outer edges of the threaded portions 32 of the rollers are in engagement with the internal circumference of the pipe. Schow then states: "At this point further tightening of the wedges 20 and 22 by means of bolt 25 is stopped and a wrench is applied to member 24 in order to rotate the entire tool within the pipe."

There also is no disclosure of the holder being tiltable towards and away from the axis of rotation. Rather, the wedges 20 and 22 cause the entire frame halves to move the same distance from the axis of rotation to maintain a symmetric configuration. Without a symmetric configuration, the device would bind in a pipe.

The Office Action also states that the slight angle of the threads creating a screwing action that creates a rotation crossing the axis of rotation of the common holder. Applicant respectfully submits that the rollers 30 only rotate about an axis which is parallel to the axis of rotation of the device. Moreover, the holders are not rotated by the screwing action.

For the forgoing reasons, Applicant respectfully submits that claim 1 is not anticipated by Schow.

With respect to new claim 32 is respectfully submitted that there is no disclosure in Schow of radially adjusting the common holder during the working of the workpiece as claimed. Rather Schow discloses that tool is adjusted prior to working of the piece. There is no disclosure of the holder being radially adjusted during the working of the workpiece, meaning the distance from the axis of rotation and holder changes while the piece is being worked. Rather, Schow clearly states that once the threaded portions 32 of the rollers contact the internal circumference of the pipe, no further adjustment of the wedges 20 and 22 is made. As such it is respectfully submitted that new claim 32 is allowable over the Schow.

Applicant also respectfully submits that Schow does not anticipate claim 16. Elements of claim 16 include said holder is pivotally mounted in or on the forming machine in such manner as to be capable tilting toward or away from said axis of rotation such that an axis of the holder crosses said axis of rotation during the forming process of the workpiece. Applicant submits that claim 16 is not anticipated by Schow for the reasons stated with respect to the allowability of claim 1.

Further, there is no disclosure of the claimed pivotal attachment of the holder to the forming machine as claimed. The pivotal attachment is given reference character 39 in the figures.

In contrast the two frame segments 12 are retained together with a resilient O ring 20. See Col. 2, lines 4-13. Retaining the two halves together with an O-ring is not a pivotal mounting as claimed. As such, claim 16 is not anticipated by Schow.

With respect to new claim 33 is respectfully submitted that there is no disclosure in Schow of radially adjusting the common holder during the working of the workpiece as claimed. Rather Schow discloses that tool is adjusted prior to working of the piece. There is no disclosure of the holder being radially adjusted during the working of the workpiece, meaning the distance from the axis of rotation and holder changes while the piece is being worked. Rather, Schow clearly states that once the threaded portions 32 of the rollers contact the internal circumference

of the pipe, no further adjustment of the wedges 20 and 22 is made. As such it is respectfully submitted that new claim 33 is allowable over the Schow.

Claims 1, 6-10, 12, 16, 19-22, 28 and 31 were also rejected as being anticipated by Rode U.S. Patent No. 2,388,643. Applicant respectfully traverses these rejections.

The Office Action refers to page 2, lines 60-70 as disclosing a tool holder 1 and 10 that is rotatable on an axis that crosses the axis of rotation by adjustment of a screw 12. However, Rode discloses that the adjustments with the screws 12 are made prior to forming or shaping the workpiece.

There is no disclosure of the holder being tilted towards or away from the axis of rotation during the working of the workpiece into a selected shape as recited in claim 1. Since all adjustments are made prior to working the workpiece and the tool holder of Rode cannot be tilted during the working of the workpiece as claimed, claim 1 is not anticipated by Rode.

New claim 32 is also not anticipated by Rode because the adjustment of the holder in Rode is made prior to use. The recited method of claim 32 provides for the radial adjustment of the holder during use.

Claim 16 also claims the pivotal attachment of the holder to the forming machine during the forming process. Claim 31 recites that the holder is rotated about an axis which crosses said axis of rotation during operation such that an outer surface of the workpiece is contacted by the first and second set of rollers. Therefore, claims 16 and 31 are allowable over Rode for the reasons stated with respect to the allowability of claim 1. As such, Applicant respectfully submits that Rode does not anticipate independent claims 1, 16 or 31 or dependent claims 6-10, 12 19-22 or 28.

New claims 32, 33 and 35, which depend from independent claim 1, 16 and 31, respectively claim that the holder is radially adjustable during the working of the workpiece. It is respectfully submitted that the adjustments in Rode are made prior to the working of the workpiece. As such it is submitted that claims 32, 33 and 35 are allowable over Rode.

The Office Action Rejected independent claim 29 as being obvious over the combination of Rode in view of Koizumi JP 59-193724. Applicant respectfully submits that claim 29 and its dependent claim 30 are not rendered obvious by the combination of Rode and Koizumi.

Claim 29 claims a plurality of rollers on a common holder that moves both radially and pivotally with respect the axis of rotation where the common the first common holder is capable of rotation about an axis which crosses said axis of rotation during the formation of the workpiece. At least these claim elements are neither taught, suggested or rendered obvious by the combination of Rode in view of Koizumi.

Rather, Rode discloses that shafts on which rollers are mounted can be at slight angles to a line L which is normal to the ends of the chuck. The purpose for aligning the shafts a slight angles is to provide a longitudinal feeding movement into the throat imparted thereon to further facilitate the swaging operation. Swinging the axis displacement in the opposite direction reverses the feeding influence. See Page 2, lines 67-74 of Rode. As such the purpose of the angled shafts is to assist in feeding the workpiece into the device, and not to form the device into a selected shape.

While Koizumi apparently discloses three rollers 14, 15, and 16 on a common holder which is apparently amounted on an X-Y table 5 and 6, Koizumi cannot be combined with Rode to achieve the stated purpose of the angle of the shaft in Rode, which is to draw the piece into the device. It appears that the three rollers on the common holder are rather used to form the workpiece to the form of the holder.

Further, Rode discloses the top and bottom ends of the shaft being secured to the chuck, as such Applicant does not understand how an X-Y table could be utilized with the disclosure of Rode as the chuck would interfere with the movement of the X-Y table. Applicant respectfully submits that an X-Y table could not be utilized with the disclosure of Rode.

Finally, Applicant submits that there is no disclosure of pivotal movement of a holder in Koizumi. Rather, it appears that holder is attached to an X-Y table, which provides for both lateral and transverse movement, but not pivotal movement.

For the forgoing reasons, Applicant respectfully submits that claim 29 and its dependent claim 30, which further defines the invention recited in claim 29, are not rendered obvious by the combination of Rode in view of Koizumi.

Applicant further submits that new claim 34 is allowable over the combination of Rode and Koizumi. Claim 34 recites that the holder is radially adjusted during the working of the workpiece. It is respectfully submitted that neither Rode or Koizumi disclose the claimed adjustability.

The Office Action also rejected claims 6-15, 19-22 and 28. Claims 6-15, 19-22 and 28 further define the inventions claimed in claims 1 and 16, respectively. At least due to their dependency upon independent claims 1 and 16, dependent claims 6-15, 19-22 and 28 are believed to be in allowable form.

The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered exhaustive of the facets of the invention which are rendered patentable, being only examples of certain novel features and differences, which the applicant has opted to comment on as illustrative examples.

Furthermore, in commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the references and particular subject matter of the present application may have been commented on, even though such differences do not appear in all of the claims. It is not intended by commenting on any such distinctions to create any implied limitations in any particular claims of the present application.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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